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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/533,641

05/03/2005

Peter Reynders

MERCK-3007

6319

24997

7590

01/10/2007

MILLEN, WHITE, ZELANO & BRANIGAN, PC

2200 CLARENDON BLVD

SUITE 1400

ARLINGTON, VA 22201

EXAMINER

LE, HOA T

ART UNIT

PAPER NUMBER

1773

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
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3 MONTHS

01/10/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/533,641

Applicant(s)

REYNDERS ET AL.

Examiner

H. T. Le

Art Unit

1773

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date July 2005.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: ____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-18 are rejected under 35 U.S.C. 102 (a) or (e) as being anticipated by the US'065 patent (US 6,815,065).

Claims 1 and 3: US'065 patent teaches transparent or semitransparent pigment flakes having diffraction gratings on their surfaces. See col. 2, lines 24-28 and 37-43; col. 4, lines 54-63.

Claim 2: The pigment flakes comprise one or more layers. See col. 5, line 63 to col. 6, line 52.

Claims 4: See col. 4, lines 21-25. A groove frequency of 1500-3000 lines/mm means 1500 to 3000 spaces per 106 nm which translates to roughly separation space of 333 nm to 1500 nm.

Claim 5: The flakes comprise materials of refraction index (RI) of 1.65 (col. 4, lines 5-15); and these high RI materials intrinsically exhibit transparency of at least 20%.

Claims 6-7: See col. 5, lines 48-53.

Claims 8-10: See col. 4, lines 5-20.

Claim 11: See col. 5, lines 11-21.

Claims 12-13: See col. 5, lines 48-53.

Claim 14: See col. 5, lines 1-47.

Claim 15: see col. 8, lines 8-11.

Claim 16: See col. 6, line 39-42.

Claims 17 and 18: See col. 5, lines 57-62.

3. Claims 1-3, 6, 8, 9, 11, 12, 14, 15, and 16-18 are rejected under 35 U.S.C. 102(b) as being anticipated by the WO'481 publication (WO93/23481).*

WO'481 teaches a metal pigment flakes having gratings on surface. The metal is aluminum which is a semi-transparent material. See claims 1 and 12. Aluminum intrinsically exhibits a transparenence of at least 20% and possesses an RI of at least 1.7. Multiple layered pigment is described in claim 35. Method of making the pigment by removing the coating from a substrate is described in claims 1-36. Composition comprising the pigment flakes and the use of pigment flakes are described in claims 37-41.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

* Copy provided by Applicant.

5. Claims 7 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over US'065 patent (US 6,815,065) as applied to claims 1-18 above, and further in view of the discussion below.

US'065 describes the claimed invention as discussed above. Although spheres as diffracting pattern are not explicitly described, they are implied in the broad report of shapes at col. 5, lines 47-56 such as "linear, cross, sinusoidal..." and "other configuration". One having ordinary skill in the art would have found it obvious to arrive at spheres as the "other configuration" for the grooves because US'065 indicates that such configuration would be equivalent to other shapes explicitly described in the patent.

6. Other references are cited as art of interest.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to H. T. Le whose telephone number is 571-272-1511. The examiner can normally be reached on 10:00 a.m. to 6:30 p.m., Mondays to Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Carol Chaney can be reached on 571-272-1284. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1773

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

A handwritten signature in black ink, appearing to read 'H. T. Le', with a stylized, cursive script.

H. T. Le
Primary Examiner
Art Unit 1773

December 28, 2006